

## A B S T R A C T

A DUAL-COIL ELECTROMAGNETIC VALVE ACTUATOR WITH A  
PERMANENT MAGNET

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The invention relates to a dual-coil electromagnetic valve actuator having a permanent magnet and an actuator member (11) movable between two extreme positions under the effect of a resilient member and two electromagnets 10 each comprising a core having a T-shaped first core portion (18) with a base (19) connected to a central branch (20) with a coil (21) disposed thereabout, the first core portion (18) being placed in a U-shaped second core portion (22) having a base (23) connected to outer 15 branches (24) which extend parallel to the central branch (20) of the first core portion (18), a permanent magnet (25) being interposed between the base of the first core portion (18) and the base of the second core portion (22). In at least one of the electromagnets, the base 20 (19) of the T-shaped first core portion (18) extends so as to co-operate with the outer branches (24) of the U-shaped second core portion (22) to present airgaps (e) of size much smaller than a distance between the base (19) of the T-shaped first core portion and the base (23) of 25 the U-shaped second core portion.

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Translation of the title and the abstract as they were when originally filed by the  
35 Applicant. No account has been taken of any changes that may have been made  
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38.2, and/or 48.3.